WHAT IS CLAIMED IS:

1. An apparatus for use in controlling the temperature of one or more substances passing through one or more microfluidics channels in an analysis device, the apparatus comprising:

a heating unit having first and second surfaces, said first surface of said heating unit being at least partially exposed for cooling of said heating unit;

a thermally conductive medium disposed proximate the second surface of said heating unit, said one or more microfluidics channels being disposed in said thermally conductive medium.

2. An apparatus as claimed in claim 1 wherein said thermally conductive medium is comprised of at least one layer of a thermally conductive rubber material.

3. An apparatus as claimed in claim 1 wherein the one or more of microfluidics channels are comprised of a plurality of capillary columns.

4. An apparatus as claimed in claim 3 and further comprising a heat dissipating unit contacting said thermally conductive medium opposite said heating unit.

5. An apparatus as claimed in claim 4 wherein said heat dissipating unit comprises a Peltier cooler.

6. An apparatus as claimed in claim 4 wherein said heat dissipating unit comprises a metal layer having a first side proximate said thermally conductive medium and a second side that is at least partially exposed for cooling of said metal layer.

7. An apparatus as claimed in claim 6 wherein the second side of said metal layer is exposed to the ambient atmosphere for cooling of said metal layer.

8. An apparatus as claimed in claim 3 wherein said first and second surfaces of said heating unit are generally parallel with and disposed opposite one another.

9. An apparatus as claimed in claim 3 wherein said first and second surfaces of said heating unit are generally coplanar.

10. An apparatus as claimed in claim 3 wherein said heating unit comprises:

a thin-film, electrical heating element having first and second opposed sides, said first opposed side of said thin-film, electrical heating element forming said first surface of said heating unit;

a metal layer disposed over at least a portion of the second opposed side of said thin-film, electrical heating element to conduct thermal energy between said thin-film, electrical heating element and said thermally conductive medium.

11. An apparatus as claimed in claim 3 wherein said thermally conductive medium is readily separated from said heating unit without damage to said heating unit.

12. An apparatus as claimed in claim 11 wherein said heating unit and said thermally conductive medium are secured with one another using one or more fasteners.

13. An apparatus as claimed in claim 12 wherein said one or more fasteners is selected from the group consisting of a clamp, a latch, and a screw.

14. An apparatus as claimed in claim 11 wherein said thermally conductive medium is secured with said heating unit using tape.

15. An apparatus as claimed in claim 11 wherein said thermally conductive medium is secured with said heating unit using an adhesive.

16. An apparatus as claimed in claim 11 wherein said thermally conductive medium is comprised of a thermally conductive silicone gel material.

17. An apparatus as claimed in claim 10 wherein said thermally conductive medium is disposed on said metal layer and is readily separated from said metal layer without damage to said heating unit.

18. An apparatus as claimed in claim 17 wherein said thermally conductive medium is comprised of a thermally conductive silicone gel material.

19. An apparatus as claimed in claim 18 and further comprising a heat dissipating unit contacting said thermally conductive medium opposite said heating unit.

20. An apparatus as claimed in claim 19 wherein said heat dissipating unit comprises a Peltier cooler.

21. An apparatus as claimed in claim 19 wherein said heat dissipating unit comprises a metal layer having a first side proximate said thermally conductive medium and a second side that is at least partially exposed for cooling of said metal layer.

22. An apparatus as claimed in claim 21 wherein the second side of said metal layer is exposed to the ambient atmosphere for cooling of said metal layer.

23. An apparatus as claimed in claim 3 wherein said first surface of said heating unit is exposed to ambient atmospheric conditions.

24. An apparatus for use in controlling the temperature of one or more substances passing through a plurality of capillaries in an analysis device, the apparatus comprising:

a heating unit;

a removable capillary assembly comprising a thermally conductive medium in which said plurality of capillaries are disposed, said removable capillary assembly and said heating unit being adapted to removably engage one another between an operative position in which said thermally conductive medium is in thermal contact with said heating unit and an inoperative position in which said removable capillary assembly is disengaged from said heating unit, removal of said capillary assembly occurring without damage to said heating unit.

25. An apparatus as claimed in claim 24 wherein said thermally conductive medium is comprised of at least one layer of a thermally conductive rubber material.

26. An apparatus as claimed in claim 24 wherein said heating unit and said removable capillary assembly are secured with one another using one or more fasteners while in the operative position.

27. An apparatus as claimed in claim 26 wherein said one or more fasteners is selected from the group consisting of a clamp, a latch, and a screw.

28. An apparatus as claimed in claim 24 wherein said removable capillary assembly medium is secured with said heating unit using tape while in the operative position.

29. An apparatus as claimed in claim 24 wherein said heating unit and said removable capillary assembly are secured with one another using an adhesive while in the operative position.

30. An apparatus as claimed in claim 24 wherein said thermally conductive medium of said removable capillary assembly comprises a thermally conductive silicone gel material.

31. An apparatus for use in controlling the temperature of one or more substances passing through a plurality of capillaries in an analysis device, the apparatus comprising:

a heating unit having first and second opposed surfaces;

a thermally conductive plate having first and second opposed surfaces;

one or more hinge structures connecting said heating unit and said thermally conductive plate for relative rotational movement about a hinge axis;

a first layer of a deformable and thermally conductive material disposed on said first opposed surface of said heating unit;

a second layer of a deformable and thermally conductive material disposed on said first opposed surface of said thermally conductive plate;

an array of capillary columns;

said heating unit and said thermally conductive plate rotating about said hinge axis between an operative position in which said array of capillary columns are secured between and in substantial thermal contact with said first and second layers of said deformable and thermally conductive material, and an inoperative position in which said array of capillary columns may be arranged between said first and second layers of said the deformable and thermally conductive material.

32. An apparatus as claimed in claim 32 wherein at least one of said first and second layers of said deformable and thermally conductive material is comprised of a layer of thermally conductive rubber.

33. An apparatus as claimed in claim 31 wherein said thermally conductive medium is readily separated from said heating unit without damage to said heating unit.

34. An apparatus as claimed in claim 31 wherein said heating unit and said thermally conductive plate are secured with one another using tape while in the operative position.

35. An apparatus as claimed in claim 31 wherein said heating unit and said thermally conductive plate are secured with one another using one or more fasteners while in the operative position.

36. An apparatus as claimed in claim 31 wherein said first and second layers of said deformable and thermally conductive material are each comprised of a thermally conductive silicone gel material.

37. An apparatus for executing a capillary electrophoresis process comprising:

a first electrode unit adapted to receive one or more substances for electrophoretic analysis;

a second electrode unit;

a plurality of capillaries extending between said first and second electrode units and adapted to conduct said one or more substances therethrough;

a detection chamber disposed between the first and second electrode units and along said plurality of capillaries to detect one or more characteristics of said one or more substances passing through said plurality of capillaries;

a temperature control unit disposed between said first electrode unit and said detection chamber along said plurality of capillaries, said temperature control unit being adapted to control the temperature of said one or more substances passing through said plurality of capillaries, said temperature control unit including,

a heating unit having first and second surfaces, said first surface of said heating unit being at least partially exposed for cooling of said heating unit,

a thermally conductive medium disposed proximate the second surface of said heating unit, said plurality of capillaries being disposed in said thermally conductive medium, and

one or more temperature sensors disposed to detect the temperature at one or more sites of the temperature control unit;

a thermal controller programmed to execute a capillary electrophoresis process in which the energy provided to heat and/or cool the temperature control unit is varied at least in response to said one or more temperature sensors.

38. An apparatus as claimed in claim 37 wherein said thermally conductive medium is comprised of at least one layer of a thermally conductive rubber material.

39. An apparatus as claimed in claim 37 and further comprising a heat dissipating unit contacting said thermally conductive medium opposite said heating unit.

40. An apparatus as claimed in claim 39 wherein said heat dissipating unit comprises a Peltier cooler.

41. An apparatus as claimed in claim 39 wherein said heat dissipating unit comprises a metal layer having a first side proximate said thermally conductive medium and a second side that is at least partially exposed for cooling of said metal layer.

42. An apparatus as claimed in claim 41 wherein the second side of said metal layer is exposed to the ambient atmosphere for cooling of said metal layer.

43. An apparatus as claimed in claim 37 wherein said first and second surfaces of said heating unit are generally parallel with and disposed opposite one another.

44. An apparatus as claimed in claim 37 wherein said first and second surfaces of said heating unit are generally coplanar.

45. An apparatus as claimed in claim 37 wherein said heating unit comprises:

a thin-film, electrical heating element having first and second opposed sides, said first opposed side of said thin-film, electrical heating element forming said first surface of said heating unit ;

a metal layer disposed over at least a portion of the second opposed side of said thin-film, electrical heating element to conduct thermal energy between said thin-film, electrical heating element and said thermally conductive medium.

46. An apparatus as claimed in claim 37 wherein said thermally conductive medium is readily separated from said heating unit without damage to said heating unit.

47. An apparatus as claimed in claim 46 wherein said thermally conductive medium is secured with said heating unit using tape.

48. An apparatus as claimed in claim 46 wherein said thermally conductive medium is secured with said heating unit using an adhesive.

49. An apparatus as claimed in claim 46 wherein said thermally conductive medium is secured with said heating unit using a mechanical fastener.

50. An apparatus as claimed in claim 46 wherein said thermally conductive medium is comprised of a thermally conductive silicone material.

51. An apparatus as claimed in claim 45 wherein said thermally conductive medium is disposed on said metal layer and is readily separated from said metal layer without damage to said heating unit.

52. An apparatus as claimed in claim 51 wherein said thermally conductive medium is comprised of a thermally conductive silicone material.

53. An apparatus as claimed in claim 37 wherein said first surface of said heating unit is exposed to ambient atmospheric conditions.

54. An apparatus for use in controlling the temperature of one or more substances passing through a microfluidics channels in an analysis device, the apparatus comprising:

a heating unit having first and second surfaces, said first surface of said heating unit being at least partially exposed for cooling of said heating unit;

a thermally conductive medium disposed proximate the second surface of said heating unit, said microfluidics channel being disposed in said thermally conductive medium.

55. An apparatus as claimed in claim 54 wherein the microfluidics channel is a capillary column.